



## Editorial

### Pura Vida

Would you find it enticing to live in a country that has temperatures of 15 to 30°C year round? Would you consider living in a country situated between two continents, with coastlines so close to each other that easy access is available to both the Pacific Ocean and the Caribbean Sea? What if there was such ecological diversity that recreational possibilities included fishing, hiking, jungle exploring, white water rafting, and bird watching? Suppose there were added bonuses: the inhabitants were warm and friendly; primary education for both sexes was obligatory and free; neutrality had been declared in perpetuity; and no armed forces existed. Is this paradise? Is it a place of *pura vida* (pure life)? Does such a country exist and, if so, can something so good last?

Yes, this country of good living actually exists and can be found in Central America. The country is Costa Rica, a relatively small country with a population of just over 3 million people and an area of around 51,000 square kilometers. Scenic natural beauty is everywhere from the extensive coastlines to the strength of the central mountain ranges. Nearly every type of ecosystem can be experienced there; volcanoes, rain forests, jungles, white water, dry forest lands, and beaches are all found in Costa Rica. There is beauty here, no doubt about that, but the wealth the country possesses goes even deeper. Untold wealth lies in the biological diversity that can be found there. Within its narrow borders are an estimated 4% of the terrestrial biodiversity of the world.

The difficult question is whether a place so captivating can last after human intrusions. Is it possible to preserve the natural beauty, maintain the current level of biodiversity, and still provide for the desirable and inevitable economic growth? Fortunately, Costa Ricans (*Ticos* as the inhabitants prefer to be called) have come to appreciate their wealth and have sought ways to preserve it.

The country, in fact, holds one of the world's best conservation records, boasting that one-quarter of the country is under some form of official protection in the form of national parks or biological reserves. Awards have included the *Cantico a Todas Las Criaturas*—"Song to all Creatures"—award given by the Rome-based Franciscan Center for Environmental Studies and the first environmental award presented by the American Society of Travel Agents. In 1992 Costa Rica was named the most environmentally conscious country in the world by the San Francisco-based News Travel Network, and the National Biodiversity Institute was awarded the Peter Scott Award by the International Union for the Conservation of Nature (1).

These reserves and parks will continuously be faced with the pressures of development, so simply setting aside areas for preservation cannot be the total solution. Costa Rica has pondered this dilemma and come up with a solution based on the assumption made by their Instituto Nacional de Biodiversidad (INBio): "a tropical society will conserve a major portion of its wild biodiversity only if protected areas can generate enough intellectual and economic income for its own upkeep."

*... Costa Rica is not alone in linking economic development and biodiversity preservation ...*

The INBio was founded in 1989 as a private, nonprofit organization for the public good. The Institute's strategies are to develop an inventory of fauna and flora and to publicize and promote the nondestructive use of biodiversity by the commercial world. The INBio views biodiversity as "a potentially powerful engine for intellectual and economic development." Biological prospecting is fostered by the Institute with the anticipated financial rewards that will make the program self-supporting and provide funds for maintaining the natural diversity of the country. User fees are charged and royalties are negotiated from the sale of any products that result from the biological materials collected in Costa Rica. Principles, potential rewards, and problems of bioprospecting have been discussed by Reid et al. (2).

While biodiversity can be a powerful engine for intellectual and economic development, current laws frequently fail to ensure that indigenous people receive any benefits when companies develop products that use the biological researches of another country. These concerns were raised in a two-day conference on Biodiversity and Human Health held last April in Washington, DC (3). During the conference, the United States National Cancer Institute reported that it had developed legal agreements to guarantee that countries would receive financial rewards and scientific assistance for their contributions to new drug discoveries. It was also emphasized that a holistic approach is needed to preserve biodiversity as a source for future discoveries. Entire ecosystems and cultures must be preserved, not just a single species. So Costa Rica is not alone in linking economic development and biodiversity preservation; but because of the unique attributes of the country, including its size, political stability, and ecological awareness of its population, Costa Rica may represent the best chance for success.

Ah, but all is not perfect in this paradise as deforestation of lands outside of the national parks and reserves continues. The demand for land remains high because of activities such as a growing cattle industry and the migration of expanding populations into virgin land areas previously considered unsafe because of war. On top of these added stresses, the Government is trying to cope with the problem of sometimes poorly managed and chronically underfunded biological reserves and refuges, the conflict between the agricultural expansionists and environmentalists, and potential reversion of land currently in the national park system back to private use because of lack of funds to honor the previous purchase agreements.

Will Costa Rica succeed? I expect they will. My confidence is supported by the observation that there is widespread appreciation of nature among the citizens of Costa Rica. People talk about the birds and the monkeys. They can identify trees and plants. They talk of the mountains and beaches with respect. Besides appreciating the beauty of nature, many truly understand that a diminution of biodiversity would deal a devastating blow to their economic future. There is a very common and mellifluous expression used by Costa Ricans that says it all—from taxi drivers to the ecotour guides one

hears the expression "pura vida!" Costa Ricans are a people who recognize the important facets of life. For the good of our planet, we all need to support their efforts in preserving biodiversity.

Thomas J. Goehl, Ph.D.

#### REFERENCES

1. Baker C. Costa Rican handbook. Chico, California: Moon Publications, 1994.
2. Reid WV, Laird SA, Meyer CA, Gamez R, Sitterfled A, Janzen DH, Gollin MA, Juma C. Biodiversity prospecting: using genetic resources for sustainable development. San Jose, Costa Rica: World Resources Institute, 1993.
3. Forum: Natures medicine cabinet. Environ Health Perspect 103:543-544 (1995).

# 25<sup>th</sup> INTERNATIONAL CONGRESS ON OCCUPATIONAL HEALTH



**Stockholm, Sweden  
September 15-20, 1996**

The Congress will be a world-wide forum to share the latest scientific advances within all principal fields of occupational safety and health. The application of these advances in occupational health practice will also be presented. Topics of the congress include the influence on health and well-being of chemical and physical factors, at the work site, as well as the impact of ergonomics, psychosocial factors, work organization and new technology. visitors to earlier ICOH congress will recognize the general structure of ICOH'96.

#### Courses

Courses on "Continuous Quality Improvement in Occupational Health Services" and "Risk Assessment of Carcinogens" will be held in Stockholm, Sweden, and Helsinki, Finland, in conjunction with the congress. The courses are being organized by the Nordic Institute for Advanced Training in Occupational Health (NIVA).